Calciphylaxis in a paediatric patient

Alison Timmis,1 Henry Morgan2

1 Department of Paediatric Nephrology, Alder Hey Children’s NHS Foundation Trust, Liverpool, UK
2 Department of Paediatric Nephrology, Royal Liverpool Children’s Hospital NHS Trust, Liverpool, UK

Correspondence to Alison Timmis, atimmis@hotmail.com

DESCRIPTION
A 17 year old presented with a painful, erythematous lesion to the dorsum of his right foot following minor trauma. The lesion was cold, 5 cm in diameter with a well-defined edge surrounding scattered petechiae (figure 1). He was unable to move his foot or weight bear due to pain. C-reactive protein and plain x-rays were normal.

The patient has chronic kidney disease (CKD) stage 5 due to IgA nephropathy and had received haemodialysis for 16 months. Serum calcium, phosphate and parathyroid hormone (PTH) were raised at 2.56 mmol/l, 3.32 mmol/l and 19.5 pmol/l. Compliance with diet and medication was inconsistent.

A clinical diagnosis of calciphylaxis was made. The patient was treated with daily dialysis sessions, cessation of both vitamin D analogues and calcium-based phosphate binders and instigation of Cinacalcet. He required opiate analgesia. The lesion improved with control of his calcium-phosphate product.

DISCUSSION
Calciphylaxis is rare in paediatric populations1 and can be confused with cellulitis, fracture or soft tissue injury. It is characterised by vascular calcification, thrombosis and skin necrosis.2 It is seen in patients with CKD 4-5 as a consequence of raised serum calcium and phosphate concentrations and secondary hyperparathyroidism.2 The prognosis is often poor with chronic, non-healing ulcers leading to sepsis and death.2 Treatment is with reduction of the calcium-phosphate product, adequate analgesia and aggressive surgical wound care.2,3 Cinacalcet, a calcimimetic agent, increases the sensitivity of the parathyroid gland to calcium and therefore decreases PTH levels. Case reports of the use of Cinacalcet in calciphylaxis suggest improved wound healing.a

Competing interests None.
Patient consent Obtained.

Figure 1 Calciphylaxis of the foot.
REFERENCES